



Product designation			Power contactor
Product type designation			BF12
Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency			-
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith	Παλ	A	28
Operational current le		~	20
	$A \subset 1 (< 10^{\circ} C)$	٨	20
	AC-1 (≤40°C)	A	28
	AC-1 (≤55°C)	A	23
	AC-1 (≤70°C)	A	20
	AC-3 (≤440V ≤55°C)	A	12
	AC-4 (400V)	Α	7.9
Rated operational power AC-3 (T≤55°C)			
	230V	kW	3.2
	400V	kW	5.7
	415V	kW	6.2
	440V	kW	6.2
	500V	kW	7.5
	690V	kW	10
Rated operational power AC-1 (T≤40°C)			
	230V	kW	10
	400V	kW	18
	500V	kW	23
	690V	kW	32
IEC max current le in DC1 with $L/R \le 1$ ms with 1 poles in series			
	≤24V	А	17
	48V	А	15
	75V	А	13
	110V	А	6
	220V	А	-
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	А	20
	48V	A	20
	75V	A	18
	110V	A	13
	220V	A	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	220 V		•
	≤24V	А	22
	≤24∨ 48V	A	22
	48 V 75 V		
		A	20
	110V	A	16

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	220V	А	11	
IEC max current le in DC1 with $L/R \le 1$ ms with 4 poles in series				
	≤24V	Α	20	
	48V	А	20	
	75V	А	20	
	110V	А	16	
	220V	A	12	
IEC max current le in DC3-DC5 with L/R \leq 15ms with 1 poles in series	220 V		12	
The max current is in DC3-DC3 with $L/R \le 15$ min 1 poles in series	-0.0.4	•	4.0	
	≤24V	A	12	
	48V	A	11	
	75V	Α	10	
	110V	Α	2	
	220V	А	_	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series				
	≤24V	А	15	
	48V	A	13	
	40V 75V			
		A	12	
	110V	Α	8	
	220V	Α	2	
IEC max current le in DC3-DC5 with L/R \leq 15ms with 3 poles in series				
	≤24V	Α	18	
	48V	А	18	
	75V	А	15	
	110V	A	12	
	220V		6	
	220 V	A	0	
IEC max current le in DC3-DC5 with L/R \leq 15ms with 4 poles in series				
	≤24V	A	15	
	48V	А	15	
	75V	Α	15	
	110V	Α	16	
	220V	А	7	
Short-time allowable current for 10s (IEC/EN60947-1)		А	150	
Protection fuse				
	gG (IEC)	А	32	
	aM (IEC)		12	
		A		
Making capacity (RMS value)		Α	120	
Breaking capacity at voltage				
	440V	А	96	
	500V	А	96	
	690V	А	94	
Resistance per pole (average value)		mΩ	2.5	
Power dissipation per pole (average value)			-	
	lth	W	2	
	AC-3	W	2	
Tichtoning to you for to you ale	AC-3	٧V	0.4	
Tightening torque for terminals	<u>.</u>			
	min	Nm	1.5	
	max	Nm	1.8	
	min	Ibin	1.1	
	max	Ibin	1.5	
Tightening torque for coil terminal				
	min	Nm	0.8	
		Nm		
	max		1	
	min	lbin	0.8	



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Max number of wires	simultaneously connectable	max	Ibin Nr.	0.74
Conductor section			INI.	2
	AWG/Kcmil			
		max		10
	Flexible w/o lug conductor section			
	5	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section			
		min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			
		min	mm²	1
		max	mm²	4
Power terminal prote	ction according to IEC/EN 60529			IP20 when
				properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30° Screw / DIN rai
Fixing				35mm
Weight			a	400
Conductor section			g	400
Conductor Section	AWG/kcmil conductor section			
		max		10
Auxiliary contact char	racteristics	Шах		10
Thermal current Ith			А	10
IEC/EN 60947-5-1 de	esignation			A600 - P600
Operating current AC	•			
1 0		230V	А	3
		400V	A	1.9
		400V 500V	A A	1.9 1.4
Operating current DC	212		_	
Operating current DC	212		_	
Operating current DC		500V	А	1.4
		500V	А	1.4
		500V 110V	A	1.4 5.7
		500V 110V 24V 48V 60V	A A A	1.4 5.7 5.7 2.9 2.3
		500V 110V 24V 48V 60V 110V	A A A A	1.4 5.7 5.7 2.9 2.3 1.25
		500V 110V 24V 48V 60V 110V 125V	A A A A A A A A	1.4 5.7 5.7 2.9 2.3 1.25 1.1
		500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A	1.4 5.7 2.9 2.3 1.25 1.1 0.55
Operating current DC		500V 110V 24V 48V 60V 110V 125V	A A A A A A A A	1.4 5.7 5.7 2.9 2.3 1.25 1.1
Operating current DC		500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A A	1.4 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life		500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A Cycles	1.4 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life Electrical life		500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A A	1.4 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life Electrical life Safety related data	213	500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A Cycles	1.4 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life Electrical life Safety related data		500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A Cycles cycles	1.4 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 20000000
Operating current DC Operations Mechanical life Electrical life Safety related data	213 10d according to EN/ISO 13489-1	500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A Cycles cycles	1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 2000000
Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B	213 10d according to EN/ISO 13489-1 me	500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A Cycles cycles	1.4 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 20000000 20000000 20000000
Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B	213 10d according to EN/ISO 13489-1	500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A Cycles cycles	1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 2000000

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1NO AUXILIARY CONTACT

DC rated control voltag	je			V	12
DC operating voltage					
	pick-up			o (1 1	
			min	%Us	70
			max	%Us	125
	drop-out		aa iya	0/110	10
			min	%Us %Us	10 40
Average coil consumpt	tion <20°C		max	/005	40
Average con consumpt			in-rush	W	5.4
			holding	Ŵ	5.4
Max cycles frequency			noiding	••	0.4
Mechanical operation				cycles/h	3600
Operating times					
Average time for Us co	ontrol				
5	in AC				
		Closing NO			
		-	min	ms	8
			max	ms	24
		Opening NO			
			min	ms	10
			max	ms	20
		Closing NC			
			min	ms	14
		a	max	ms	28
		Opening NC			_
			min	ms	7
			max	ms	18
	in DC				
		Closing NO	min	ms	54
			max	ms	66
		Opening NO	Пах	mo	00
		opolingito	min	ms	14
			max	ms	17
UL technical data					
Full-load current (FLA)	for three-phase AC m	notor			
. ,			at 480V	А	11
			at 600V	А	11
Yielded mechanical pe					
	for single-phase AC	motor			
			110/120V	HP	1
			230V	HP	2
	for three-phase AC	motor	/ /		_
			200/208V	HP	5
			220/230V	HP	5
			460/480V	HP	7.5
Conorol LICE			575/600V	HP	10
General USE	Contactor				
	Contactor			۸	20
	Auxiliary contacts		AC current	A	28
	Auxiliary contacts		AC voltage	V	600
			AC voltage	A	10
				А	

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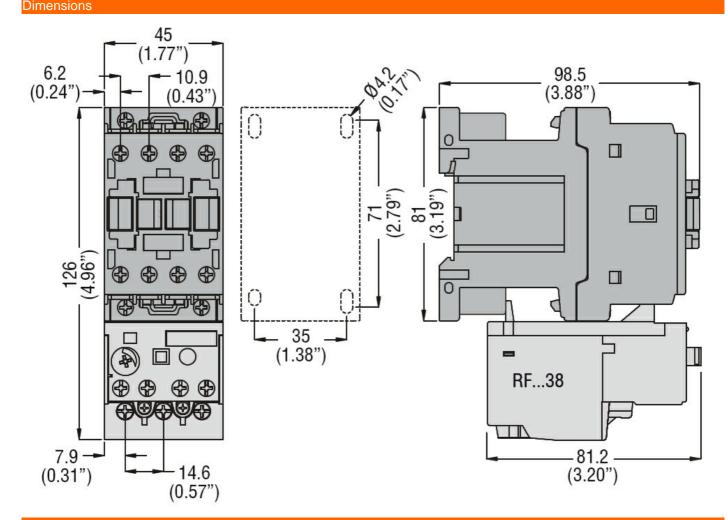
The characteristics described in this document are subject to updates or modifications at any time. The descriptions, technical and functional information, illustrations and instructions in this brochure are purely illustrative, and are consequently not contractually binding



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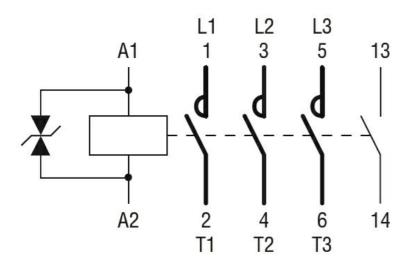
IE (AC3) = 12A	, DC COIL,	12VDC,
1NO AU	XILIARY CO	ONTACT

		DC voltage	V	250
		DC current	А	1
Short-circuit protec	tion fuse, 600V			
	High fault			
	-	Short circuit current	kA	100
		Fuse rating	А	30
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	А	70
Contact rating of au	uxiliary contacts according to UL			A600 - P600
Ambient conditions	;			
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Prote	ection			
Pollution degree				3
Dimensions				



Wiring diagrams





Certifications and compliance

Compliance

Compliance	
	CSA C22.2 n° 60947-1
	CSA C22.2 n° 60947-4-1
	IEC/EN/BS 60947-1
	IEC/EN/BS 60947-4-1
	UL 60947-1
	UL 60947-4-1
Certificates	
	CCC
	cULus
	EAC
ETIM classification	

ETIM 8.0

EC000066 -Power contactor, AC switching